

**REMARKS**

Claims 1, 3-15, 21-24, and 26-36 are pending in the present application, with Claims 1, 5, 7, 15, 22, 24, and 32-36 being the independent claims. In the above amendments, Claims 1, 5, 7, 15, 22, 24, and 26 have been amended and Claims 32-36 have been added. Support for the amendments are found, for example, in paragraphs [1060] to [1063]. For instance, paragraph [1063] describes that “for active segmentation, segment retransmission requests are supported” and “for inactive segmentation, segment retransmission requests are not supported.” Thus, no new matter has been added by the changes to the application.

This application has been carefully reviewed in light of the Office Action dated June 27, 2007. Applicants respectfully respond to this Office Action.

I. Specification Objections

The specifications were objected to for missing the related U.S. Patent application serial number and referencing Figure 7C when no such Figure exists. Applicants have corrected the specifications as shown in the AMENDMENTS TO THE SPECIFICATIONS. Withdrawal of the objection is respectfully requested.

II. Claim Objections

The Examiner objected to Claims 7, 15, and 22 for having informalities. Specifically, Claims 7 and 15 were objected to as having the word “a” instead of the word “the.” Further, Claims 15 and 22 were objected to as using the phrase “adapted to.” Appropriate corrections to the claims were made as indicated in the AMENDMENTS TO THE CLAIMS. Withdrawal of the objection is respectfully requested.

III. Claim Rejections

A. 35 U.S.C. § 101 Rejections

Claims 16, 19, 20, and 25 were rejected to under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Specifically, the Claims were rejected for being directed to a “signal per se” with no claimed practical application. Claims 16, 19, 20, and 25 have been cancelled without prejudice. Withdrawal of the § 101 rejection is respectfully requested.

B. 35 U.S.C. § 102(e) Rejections

Claims 1, 3-11, 15, 16, 19-21, 23, and 25-31 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,947,446 to LoGalbo et al. (hereinafter “LoGalbo”). Applicants have reviewed LoGalbo and respectfully submit that the claimed invention is patentably distinguishable over LoGalbo for at least the following reasons.

Independent Claim 1 concerns a method which indicates steps of segmenting a message into a plurality of segments, determining a fragment size and a number of fragments for each of the segments, dividing the segments into a plurality of fragments using the fragment size and the number of fragments, and transmitting the fragments with information regarding reconstruction of a fragmented segment.

LoGalbo is not understood to concern segmenting a message into a plurality of segments and further dividing the segments into a plurality of fragments. One skilled in the art would appreciate that segments are defined as parts divided from a packet. Packets do not correspond to segments and neither do segments correspond to fragments. LoGalbo is understood to concern a segmentation of a packet without any further division of the segments into fragments. Further, LoGalbo is not understood to transmit fragments with information regarding reconstruction of a fragmented segment as LoGalbo is not understood to concern fragments. For at least these reasons, Claim 1 is believed to be allowable over LoGalbo. Reconsideration and withdrawal of the § 102(e) rejection of Claim 1 is respectfully requested.

Independent Claim 5, as amended, concerns a wireless receiving system that includes means for building segments of a message from a plurality of transmitted frames, means for identifying a missing segment of the message, means for extracting a segmentation indicator, wherein the segmentation indicator is received from the transmitting side and indicates if segmentation is active for retransmission requests, and means for requesting a retransmission of

the missing segment wherein if it has been identified that a segment is missing, a retransmission of the missing segment is requested if the segmentation indicator is active.

LoGalbo is understood to concern a set of segment acknowledgment indicators created by the “receiver” for indicating which segments of an IP packet were received error-free and which had errors. (Column 12, lines 9-12). The data blocks containing those IP packet segments received in error are then retransmitted by the transmitter. (Column 12, lines 17-19). The acknowledgement indicators, however, are not understood to describe whether segmentation is active for retransmission requests and are not part of the data signal transmitted from the transmitting side. Thus, independent Claim 5 is believed to be allowable. Reconsideration and withdrawal of the § 102(e) rejection of Claim 5 is respectfully requested.

Independent Claim 7, as amended, concerns a method for receiving a transmission frame having a plurality of segments, each segment having a plurality of fragments, wherein a fragment size and number of fragments is determined for each of the segments, determining if any of the plurality of segments is missing, and reconstructing the message if no segment is missing. If a segment is missing, the method determines if segmentation is active for retransmission from a segment indicator received from a transmitting side and if segmentation is active, requests retransmission of the missing segment.

Similarly, independent Claim 15, as amended concerns a wireless apparatus that includes a receiver for receiving a plurality of transmission frames having a plurality of segments, each segment having a plurality of fragments, wherein a fragment size and number of fragments is determined for each of the segments, a segment extraction unit coupled to the receiver for identifying and reconstructing segments within a transmission frame according to segment indicators associated with segments and received from a transmitting side, wherein at least one of the segment indicators indicates when segmentation is active for retransmission requests, and a message reconstruction unit coupled to the segment extraction unit for determining any missing segment within a message and to request retransmission of the missing segment.

The foregoing inventions of a method and an apparatus include segmenting a message into a plurality of segments and further dividing the segments into a plurality of fragments. The foregoing inventions also include a segmentation indicator for indicating whether segmentation is active for retransmission. As recited above, LoGalbo is not understood to concern at least

these features. Thus, independent Claims 7 and 15 are believed to be allowable. Reconsideration and withdrawal of the § 102(e) rejection of Claims 7 and 15 is respectfully requested.

Claims 22 and 24 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,141,784 to Davis et al. (hereinafter “Davis”). Applicants have reviewed Davis and respectfully submit that the claimed invention is patentably distinguishable over David for at least the following reasons.

Independent Claim 22, as amended, concerns an apparatus for operation in a wireless communication system that includes means for segmenting a message into a plurality of segments, means for determining a fragment size and a number of fragments for each of the segments, means for dividing the segments into a plurality of fragments using the fragment size and the number of fragments, and means for transmitting the fragments.

Davis is understood to concern a packet divided into segments. (Column 4, line 32). The number of segments and any size segment may be selected as a matter of design choice. (Column 4, lines 35-37). Davis is not understood to concern segmenting a message into a plurality of segments and further dividing the segments into a plurality of fragments. Thus, Claim 22 is believed to be allowable over Davis. Reconsideration and withdrawal of the § 102(e) rejection of Claim 22 is respectfully requested.

C. 35 U.S.C. § 103(a) Rejections

Claims 12-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over LoGalbo in view of U.S. Patent No. 7,031,343 to Kuo et al. (hereinafter “Kuo”). Claims 12-14 are dependent on Claim 7. As discussed above, LoGalbo is not understood to concern all of the limitations recited with regard to Claim 7. Accordingly, for the above, mentioned reasons, Claims 12-14 are allowable over the cited art. In addition, Claims 12-14 further add to the patentability and nonobviousness of the present application. For these reasons, applicants respectfully request withdrawal of the § 103(a) rejections with regard to Claims 12-14 and allowance of the claims.

Independent Claims 32-36 have been added. Claims 32-36 are computer-readable medium and apparatus claims written along the lines of Claims 1, 5, or 22. Applicants believe

that Claims 32-36 are allowable over the cited art for the same reasons raised above with respect to Claims 1, 5, or 22.

The other claims under consideration in the application are dependent from the independent claims discussed above and therefore are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

**REQUEST FOR ALLOWANCE**

In view of the foregoing, Applicant submits that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

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